

THREE NEW SPECIES OF BLISSUS FROM THE ANTILLES
(HETEROPTERA: LYGAEIDAE)

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In a study of the fauna of eastern North America of the genus *Blissus* Burmeister (Leonard, 1966, 1968) it was noted that the paratype of *B. insularis* Barber 1918 were not conspecific with the holotype of *insularis* from Florida. This paper describes these specimens from Puerto Rico as a new species, and also includes two other new species.

The New World forms of the genus *Blissus* are generally accepted to be of South or Central American origin, but little work has been done on the fauna of this region. In fact, at present about twice as many species of *Blissus* are known from eastern North America as have been described from Central and South America. Until the fauna from Central and South America is better understood, there will most likely not be an exhaustive study of the insular fauna.

The generalized facies of the genus *Blissus* appear in Leonard (1968) and will not be repeated here. All measurements are in mm.

Blissus slateri, n. sp.

Head gray pruinose dorsally, tylus nearly piceous basally, becoming castaneous toward apex. Antennal segments I castaneous, II castaneous with apical $\frac{1}{6}$ darker, segments III and IV dark, nearly piceous. Anterior lobe of pronotum gray pruinose except apical margin suffused with castaneous, posterior lobe velvety black except humeral angles suffused with castaneous and basal margin ochraceous. Scutellum velvety black. Hemelytra milky white, veins creamy white except light tan along commissure and membrane. Distal spot of hemelytra large, light brown. Membranous portion of wings opaque white, nearly reaching apex of abdomen.

Head nearly black ventrally and laterally, lightly covered with gray pruinose. Labium castaneous. Thoracic pleura gray pruinose, except light castaneous or ochraceous on propleural margins, apical margin of metapleuron, and bases of coxae. Apical margin of mesopleuron, and all but apical margin of metapleuron lightly shagreened, including ostiolar peritreme. Coxae dark castaneous, trochanters light castaneous. Prothoracic femora castaneous, except lighter on basal and apical margins, meso- and metathoracic femora light castaneous along both basal third and apical margin, slightly darker on apical half. Trochanters light castaneous, except darker on apical margin, most pronounced on prothoracic legs. First two tarsal segments light castaneous, last segment darker. Abdomen dark castaneous.

Head slightly declivent, impunctate, lightly clothed with erect and suberect straw-yellow setae, eyes prominent, antenniferous tubercles extending slightly downward from fore portion of eye, darkly castaneous, becoming light at apex.

Tylus prominent, nearly reaching apex of antennal segment I, width across eyes 0.67, interocular space 0.38, length of head 0.53. Length of antennal segments I-IV: 0.16, 0.38, 0.35, 0.58. Length of labial segments I-IV: 0.38, 0.48, 0.30, 0.34.

Metathoracic scent gland with anterior projection broadly oval, slightly wider than long, posterior margin not extending to lateral projection of scent gland. Pronotum clothed with erect and suberect light straw-yellow setae, lightly punctate, width of anterior lobe 0.99, width of posterior lobe 1.12, length along median 0.74. Posterior margin of pronotum slightly sinuate. Scutellum with erect straw-yellow setae, distinctly punctate except on lateral margin which is depressed along basal region, width 0.61, length 0.38. Length of hemelytra 1.28, total length of wing 2.18.

Abdomen densely clothed with closely appressed silvery-white setae, giving dark castaneous abdomen a silvery sheen. Length of abdomen and scutellum, 2.40; width of abdominal tergite V, 0.91. Total length, 3.42.

Females somewhat larger, same general characteristics as above. Width of head across eyes 0.62, interocular space 0.38, width anterior lobe of pronotum 0.96, posterior lobe 1.09, length 0.62. Length of scutellum 0.37, width 0.58. Length of abdomen and scutellum 2.34, width of abdominal tergite V 0.93. Total length 3.33.

Holotype: Male, San Juan, P. R. August 2 and 3, 1914. *Blissus leucopterus* var. *insularis* paratype H. G. Barber. USNM 69848.

Paratypes: 1 ♂ 4 ♀♀, same information as holotype; 15 ♂♂, 5 ♀♀, San Juan, P. R. August 2 and 3, 1914. AMNH, USNM, J. A. Slater's Collection, author's collection.

B. slateri is in the *leucopterus* complex. The distinguishing features of *slateri* are the contrasting coloration of the femora, lighter coloration of the veins and the distal spot, and the shape of the scent gland. Both macropters and brachypters are known. Of the specimens in the type series, 7 ♂♂ and 5 ♀♀ are brachypters.

It is my distinct pleasure to name this species after Dr. James A. Slater in respect for his immense contributions to the knowledge of the Lygaeidae, for his talents as an inspiring teacher, and in tribute for his nurturing of my interest in entomology.

***Blissus planus*, n. sp.**

Head black, lightly tinged with gray pruinose, tylus piceous on basal $\frac{2}{3}$, contrasting with light castaneous on apical $\frac{1}{3}$. Antennal segment I and basal $\frac{3}{4}$ of II light castaneous, remainder of II and III-IV dark castaneous. Pronotum pruinose, except medially and apically velvety black, apical margin suffused with brownish-orange. Posterior lobe velvety black, becoming lighter basally, and basal margin conspicuously ochraceous. Scutellum velvety black. Hemelytra milky white, veins creamy white apically, light brown basally, bordering commissure, and membrane. Distal spot of corium large, light brown. Membrane opaque, white, reaching nearly to apex of the abdomen. Head nearly piceous ventrally, antenniferous tubercles piceous, bordering anterior margin of eye.

Labium castaneous. Propleuron generally black, lightly covered with gray pruinose. Apical margin and region bordering coxae ochraceous, basal $\frac{1}{3}$ lightly suffused with orange, basal margin orange. Metapleuron lightly gray pruinose, basal margin shagreened. Coxal margins orange. Metapleuron shagreened, except dorsal and basal $\frac{1}{4}$ lightly gray pruinose, basal margin ochraceous. Scent gland anterior projection not extending beyond margin of lateral projection. Legs similar, with coxae shining, dark castaneous, trochanters and femora castaneous. Abdomen castaneous, distal margin of V, VI, and VIII ochraceous.

Head lightly clothed with erect and suberect straw-yellow setae, tylus reaching apical margin of antennal segment I. Eyes prominent, width across eyes 0.59, interocular space 0.35, length of antennal segments I-IV: 0.14, 0.32, 0.26, 0.48. Length of labial segments I-IV: 0.35, 0.37, 0.26, 0.29.

Pronotum rather densely clothed with erect straw-yellow setae, basal margin slightly depressed. Lightly punctate except on margins and median. Width 0.56, length 0.32.

Hemelytra lightly clothed with erect straw-yellow setae, length 1.09. Total length of wings 1.89. Abdomen densely clothed with closely appressed and erect silvery-white setae. Length of abdomen and scutellum 1.95, width of abdominal tergite V 1.02. Total length 2.98.

Females somewhat larger, same general characteristics as above. Width of head across eyes 0.62, interocular space 0.35, length of antennal segments I-IV: 0.38, 0.43, 0.21, 0.32. Width of anterior lobe of pronotum 0.96, posterior lobe 1.14, length 0.67. Width of scutellum 0.61, length 0.35. Length of abdomen and scutellum 2.18. Width of abdomen 0.83. Hemelytral length 0.83, length of wing 2.08. Total length 3.20.

Holotype: Male, Mount Gay Est. (Leeward side), Grenada, W. I., H. H. Smith. USNM 69849.

Paratypes: 2 ♀♀, same data as holotype, P. R. Uhler Collection. 1 ♀, Caliveny Est. (Windward side), Grenada, W. I., H. H. Smith. In USNM and author's collection.

B. planus is in the *leucopterus* complex, and most closely approximates *Blissus leucopterus leucopterus* (Say). However, *B. planus* differs from *B. l. leucopterus* in its smaller size, lighter coloration of the abdomen and distal spot of the corium, and shorter antennae.

B. planus is known from both brachypters and macropters.

Blissus antillus, n. sp.

Head nearly black dorsally, lightly covered with light-gray pruinose, tylus piceous except apex dark castaneous. Antennal segment I castaneous, II light castaneous on basal $\frac{1}{2}$, becoming dark castaneous, III-IV nearly piceous. Anterior lobe of pronotum gray, pruinose except apical and median velvety black. Posterior lobe velvety black. Apical and basal margin of pronotum lightly suffused with dusky orange. Scutellum velvety black. Hemelytra and membrane milky white. Veins of hemelytra milky white apically, becoming chocolate brown. Distal spot of corium chocolate brown.

Head and thorax nearly black ventrally and laterally, lightly suffused with

gray pruinosity. Apical and basal margin of propleuron, apical margin of metapleuron, and margins of coxae lightly yellowed or orange. Basal margin of mesopleuron and apical $\frac{2}{3}$ of metapleuron including scent gland shagreened, except region above the prominent metapleural groove. Coxae dark castaneous, shining, femora castaneous, tibiae and tarsi light castaneous, abdomen dark castaneous, apical margins of VI–VIII narrowly margined with yellow.

Head slightly declivent, impunctate, lightly clothed with suberect and erect silvery setae. Eyes prominent, antenniferous tubercles piceous, extending forward and slightly downward margining on the fore portion of eyes. Tylus prominent, extending nearly to apex of antennal segment I. Width across eyes 0.58, interocular space 0.35, length of head 0.48, length of antennal segments I–IV: 0.16, 0.35, 0.26, 0.46. Length of labial segments I–IV: 0.35, 0.40, 0.26, 0.32. Pronotum clothed with suberect and erect silvery setae, no apparent punctations, width of anterior lobe 0.86, posterior lobe 0.96, length 0.61. Posterior margin slightly sinuate.

Scutellum with erect silvery setae, basal margin slightly depressed, punctate except lateral margins and median, width 0.51, length 0.30.

Length of hemelytra 0.99, length of wing 1.86. Abdomen densely clothed with closely appressed silvery setae, length of abdomen and scutellum 1.92, width of abdominal tergite V 0.72. Total length 2.82.

Female somewhat larger, same general characteristics as above. Width of head across eyes 0.61, interocular space 0.37, width of anterior lobe of pronotum 0.96, posterior lobe 1.07, length 0.61. Length of scutellum 0.35, width 0.59. Length of abdomen and scutellum 1.92, width of abdominal tergite V 0.77. Total length 2.88.

Holotype: Male, Mayaguez, P. R., H. D. Tate, 9–10–35. Damaging Lawn, *Polytria amaura*. USNM 69850.

Paratypes: 19 ♂♂, 8 ♀♀, Mayaguez, P. R., H. D. Tate, 9–10–35. Damaging Lawn, *Polytria amaura*. 1 ♂, Mayaguez, P. R., 4–23–36, from *Eleusine indica*. 1 ♂, Ponce, P. R., July 20–22, 1914.

In general habitus this species resembles other species of the *leucopterus* complex, particularly *B. insularis*. However, it is smaller than *insularis*, and has greater contrast between the velvety black of the pronotum and both the nearly piceous tylus, and bluish pruinosity of the pronotum. In macropters, the distal spot of the corium is broader, the ratio of length to width not approximating 2:1 as in *insularis*. The peritreme of the scent gland is broader than most species of *Blissus*, and is only about $\frac{1}{3}$ longer than broad.

REFERENCES

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